

Figure 1

>huGST-3 (from LifeSeq EST #2617407, ORF is highlighted in capitals)
gaattccattgtgttgggtacggaagacgacagaagggttagaggagaaaagcgcacatgg
cccggctagcagtgagcctctcaaaagcagcaggggaagcccaagccacaaggtcttcc
acttcagcacaatgctactgcctaaaaaaATGAAGCTCCTGCTGTTTCTGGTTTCCCA
GATGGCCATCTTGGCTCTATTCTTCCACATGTACAGCCACAACATCAGCTCCCTGTCT
ATGAAGGCACAGCCCGAGCGCATGCACGTGCTGGTTCTGTCTTCCTGGCGCTCTGGCT
CTTCTTTTGTGGGGCAGCTTTTGGGCAGCACCCAGATGTTTTCTACCTGATGGAGCC
CGCCTGGCACGTGTGGATGACCTTCAAGCAGAGCACCGCCTGGATGCTGCACATGGCT
GTGCGGGATCTGATACGGGCCGTCTTCTTGTGCGACATGAGCGTCTTTGATGCCTACA
TGGAACCTGGTCCCCGGAGACAGTCCAGCCTCTTTCAGTGGGAGAAGAGCCGGGCCCT
GTGTTCTGCACCTGCCTGTGACATCATCCACAAGATGAAATCATCCCCGGGCTCAC
TGCAGGCTCCTGTGCACTCAACAGCCCTTTGAGGTGGTGGAGAAGGCCTGCCGCTCCT
ACAGCCACGTGGTGTCTCAAGGAGGTGCGCTTCTTCAACCTGCAGTCCCTCTACCCGCT
GCTGAAAGACCCCTCCCTCAACCTGCATATCGTGACCTGGTCCGGGACCCCGGGCC
GTGTTCCGTTCCCGAGAACGCACAAAGGGAGATCTCATGATTGACAGTCGCATTGTGA
TGGGGCAGCATGAGCAAAACTCAAGAAGGAGGACCAACCCTACTATGTGATGCAGGT
CATCTGCCAAAGCCAGCTGGAGATCTACAAGACCATCCAGTCCTTGCCCAAGGCCCTG
CAGGAACGCTACCTGCTTGTGCGCTATGAGGACCTGGCTCGAGCCCCTGTGGCCCA
CTTCCCGAATGTATGAATTCTGTGGGATTGGAATTCTTGCCCCATCTTCAGACCTGGGT
GCATAACATCACCCGAGGCAAGGGCATGGGTGACCACGCTTTCACACAAATGCCAGG
GATGCCCTTAATGTCTCCAGGCTTGGCGCTGGTCTTTGCCCTATGAAAAGGTTTCTC
GACTTCAGAAAGCCTGTGGCGATGCCATGAATTTGCTGGGCTACCGCCACGTGAGATC
TGAACAAGAACAGAGAAACCTGTTGCTGGATCTTCTGTCTACCTGGACTGTCCCTGAG
CAAATCCACTAAgagggttgagaaggctttgctgccacctggtgtcagcctcagtcac
tttctctgaatgcttctgagccttgccctacatctctgagccttaactacatgtctgtg
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gtgaaacagggatttgctcttcttcttcttcttgatcttctgtctgggcagacttcag
agactttgtggcctggaggcctattaagcacgacacagtatcagtggaattgatccat
aaacctccctgtccacatcttgcccaatggggaatggatctttcaccaaagagctcac
cagcattttccacagagatgcgaattctgagcccttgaggttcccaatgggattcaag
gaaggaagtgggaacaagggttggtatgcctacttatgagcttgaccatacagctatcgg
taatcagaaatatgaaacaaaatctctgacaaaagagcaagctcttaagttcacaagg
tgcttgggcttgatttgaatatcatttccctttgcattttccattacatagaaaact
ttgacctgtgaaacttgccatctgttaataactaaaattcccaaataagggttctgttta
gaatgtccctttttatgcttcttaattattagcagtaaatgttcatttttatgggatac
ctaaaaaaaaaaa

091635.03204

Figure 2

>huGST-3 (Full length EST Lifeseq #2617407)

MLLPKKMKLLLFLVSQMAILALFFHMYSHNISSLMSKAQPERMHVLVLSSWRSGSSFV
GQLFGQHPDVFYLMPEPAWHVWMTFKQSTAWMLHMAVRDLIRAVFLCDMSVFDAYMEPG
PRRQSSLFQWENSRALCSAPACDIIPQDEIIPRAHCRLLCSHNPLRWWKRPCRSHV
VLKEVRFFNLQVPIPAERPLLNLHIVHLVLDPRSVFRSRERTKGDLMIDSRIVMGQH
EQKLKKEDQPYVVMQVICQSQLEIYKTIQSLPKALQERYLLVRYEDLARAPVAQTSRM
YEFVGLFLPHLQTWVHNI TRGKGMGDHAFHTNARDALNVSQAWRWSLPYEKVSRLQK
ACGDAMNLLGYRHVRSEQEQRNLLLDLLSTWTVPEQIH

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Figure 3

>msGST-3 from mouse C57Bl/6 BAC clone #87(b15) (ORF is highlighted as capitals)

gggcatctaacttacacttggtcagacaagacaagcttttgcctacaaaggccacact
ctgtcaggggtgtagaaaggtgtggggtgtggcagaactccctatagtgattaaatgt
gctgggtaggatattctcggtgggtttgatggatgagaaagcccagaggggtgagtttta
aagacttgtaacatagaatgcagtgatccaattaagagccagaattactttgcagagg
gatctggacaaataacttgcaggaatgtttttgggtttttgtttgtttgtttgttt
tacattgctccttggatgggaatccagagaagcccgaaggtagatgctgtaacaacct
aactcagccccatccccctctgcttgcctttcaaggtcttctccttcttccgcaggAT
GATGCTGTTGAAGAAAGGGAGGCTGCTGATGTTCTTGGGTTCCTCAGGTCATCGTTGTA
GCTCTCTTCATCCATATGTCCGTCCACAGACACCTTTCCAGAGGGAGGAGTCCAGGA
GGCCCGTGTCATGTGCTGGTGCTGTCTTCTGGCGGTGAGGATCCTCTTTTGTGGGACA
GCTTTTCGGGCAGCACCCGGATGTGTTCTACCTGATGGAGCCTGCCTGGCATGTGTGG
ATGACTTTCACCAGCAGCACAGCCTGGAAGCTGCACATGGCTGTGCGGGATCTTCTGC
GTTCCGTCTTCTGTGTGACATGAGCGTCTTTGATGCCTACATGAACCCAGGCCCCCG
GAAACAGTCCAGCCTCTTCCAGTGGGAGCAAAGCCGGGCCCTGTGCTCAGCGCCTGTG
TGTGACTTCTTCCCTGCCCACGAGATCAGCTCACCCAAGCACTGCAAGCTGCTCTGCG
GTCAGCAGCCCTTTGATATGGTGGAGAAGGCCTGCCGCTCTCACGGCTTCGTGGTACT
CAAGGAGGTGCGTTTTCTCAGCCTGCAGGCCCTCTATCCACTACTCACGGACCCCTTCC
CTCAACCTGCACGTCGTGCACCTGGTCCGAGACCCCCGGGCCGTGTTCCGATCCCGGG
AGCACACCACCATAGAACTCATGGTTGACAGTCATATTGTGCTAGGGCAGCATTTGGA
AACGATCAAGGAGGAAGACCAGCCCTATTATGCCATGAAGATCATCTGCAAAAGCCAG
GTGGACATAGTCAAGGCCATCCAAACCCTCCCTGAAGCTCTGCAGCAGCGCTACCTGT
TCCTGAGGTATGAGGACCTGGTTTCGGGCACCCCTGGCCCAGACGACCAGACTATATAA
ATTTGTGGGGTTGGATTTTTTGGCCACCTCCAAACATGGGTTTACAATGTCACCCGC
GGCAAGGGCATGGGTGAGCATGCCTTCCATACTAACGCCAGGAACGCCCTCAACGTCT
CTCAGGCGTGGCGTTGGTCCTTACCTTACGAAAAGGTTTCCCAGCTTCAAGATGCCTG
CGGTGAGGCTATGGATTTGCTGGGATACCTCCAGGTGAGATCTCAACAAGAACAAGGC
AACCTGTCCCTGGATCTTCTGTCTCTCCTCCCATATCTTGGGGCAGGTCTTCCGAGAAG
GTTAAggaggtctgtctgcaccccttggttccagccttagtcaccattaaacgcacag
aagccttaagggtataaacaaactgagtgccccctttctcctcagccccaagcagagggg
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atcttttctaag

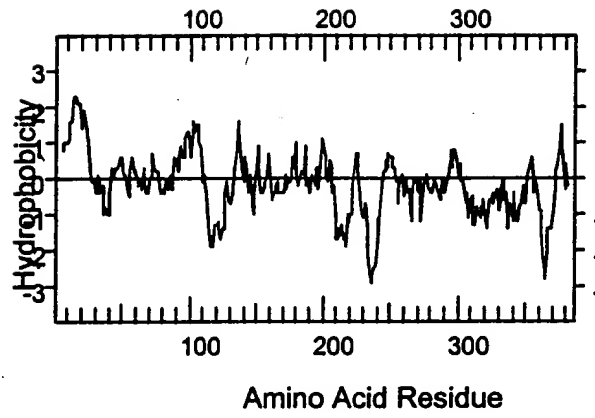
09816825.032204

Figure 4

>msGST-3 translation of ORF from mouse C57Bl/6 BAC clone #87(b15)
MMLLKKGRLLMFLGSQVIVVALFIHMSVHRHLSQREESRRPVHVLVLSSWRSGSSFVG
QLFGQHPDVFYLMPEAWHVWMTFTSSTAWKLHMAVRDLLRSVFLCDMSVFDAYMNP GP
RKQSSLFQWEQSRALCSAPVCDFFPAHEISSPKHCKLLCGQQPFDMVEKACRSHGFVV
LKEVRFLSLQALYPLLTDPSLNLHVHLVRDPRAVFRSREHTTIELMVDSHIVLGQHL
ETIKEEDQPYYAMKIIICKSQVDIVKAIQTLPEALQQRYLFLRYEDLVRAPLAQTTRLY
KFVGLDFLPHLQTWVYNVTRGKGMGQHAFHTNARNALNVSQAWRWSLPYEKVSQ LQDA
CGEAMDLLGYLQVRSQQEQGNLSLDLLSSSHILGQVFREG

091625.03201
T022ED"5239T350

Figure 5



09816925.0322001
T02220.52997850

Figure 6

106 134

HEC-GlcNAc6ST	SWRSGSSFVGO	LFGQHPDVET	METAVIR
GlcNAc6ST	TWRSGSSF	FCELFNQNP	EEFYIMVIR
KSGal6ST	ITRSGSSFVGO	LFNQCHLDVET	EEFYIMVIR
C6ST	ITRTGSSFVGE	FFNQQGNIF	YLEEHEWHI

249 270

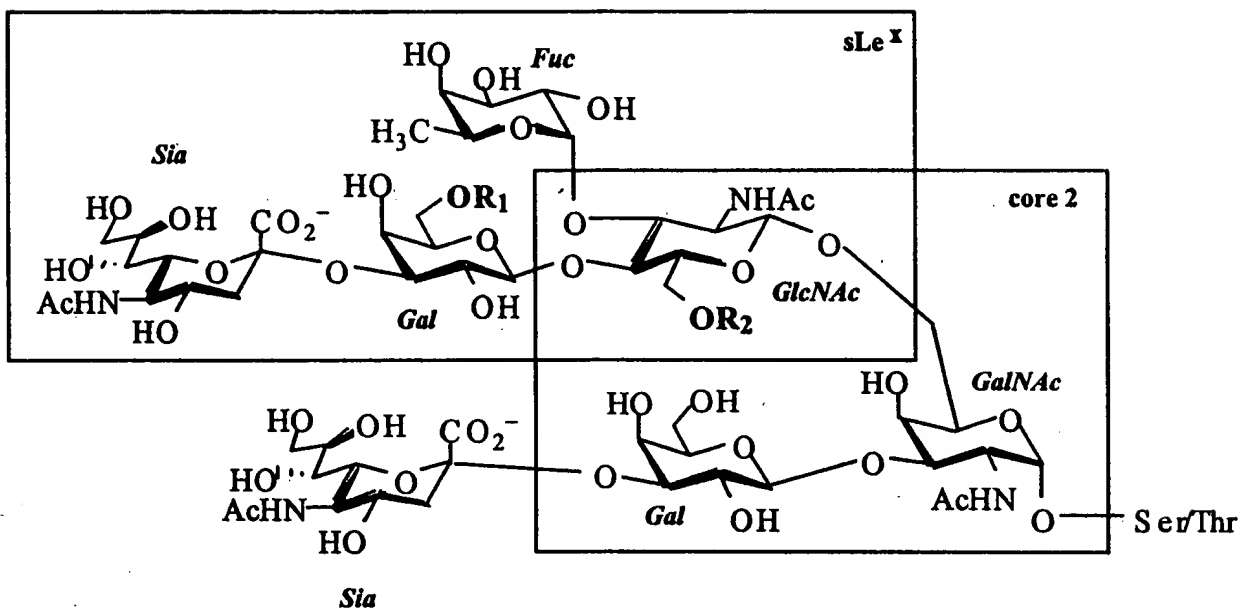
HEC-GlcNAc6ST	DPSLNLIHIVHL	VLRDPRAVFRSP
GlcNAc6ST	DPALDLKVIHL	VLRDPRAVASSE
KSGal6ST	DPRLNLKVLQL	VLRDPRGILASE
C6ST	DPRLDLRVIQL	VLRDPRAVLASE

320 339

HEC-GlcNAc6ST	PKALQERYLL	VRYEDLARAP
GlcNAc6ST	PDWLQGHYL	VRYEDLVGDE
KSGal6ST	PPWLKGGYML	VRYEDLARNE
C6ST	PAWLGRGYML	VRYEDVARGE

0916825-03201

Figure 7



$R_1 = H, R_2 = SO_3^-$: 6-sulfo sLe^x

$R_1 = SO_3^-, R_2 = H$: 6'-sulfo sLe^x

$R_1 = R_2 = SO_3^-$: 6',6-disulfo sLe^x